

Expert Data Scientist & AI Strategist



Dr. Mathew Divine

Dr. sc. hum.

Master of Science (M.Sc.) Biomedical Engineering

Bachelor of Science (B.Sc.) Physics and Mathematics

Frankfurt Region, Germany

[LinkedIn](#) | [Google Scholar](#) | [Website](#)

Executive Summary

"I am a seasoned Data Scientist with over a 15+ years of experience in both traditional machine learning and generative AI in the biomedical and Pharma domains. With a strong foundation in AI strategy, design thinking facilitation, and qualitative user research, I excel in translating complex data analysis into actionable business insights. My expertise includes developing and integrating cutting-edge AI models into business strategies and technical solutions in the cloud, ensuring high-quality outcomes. I have a proven track record of mentoring teams, conducting training, and driving digital transformation initiatives that result in significant cost savings and operational efficiencies. My approach is grounded in collaboration, fostering a culture of innovation and growth. Fluent in both German and English, I am dedicated to leveraging AI to solve complex problems and deliver measurable results."

Professional Experience

01 | 2024 — present

Data Science Expert and AI Strategist — Freelancer

I specialize in developing and implementing data-driven strategies for organizations looking to enhance their operational efficiency and profitability. My expertise spans from strategic consulting to hands-on implementation, leveraging modern machine learning frameworks and Python to create innovative solutions with a cloud-first mentality.

Skills: Strategy Consulting, Requirements Gathering, Coaching and Upskilling
Technologies: Python, Machine Learning, Cloud Solutions, SQL, Generative AI

08 | 2021 — 12 | 2023

Head of Digital Lab (CD&O) — Boehringer-Ingelheim

- Coached a team of 8 Digital-Experts and -Designers, developing a digital transformation execution strategy, reducing the time to market by several weeks, increasing revenue
- Aligned execution strategy across departments with workshops, ensuring business unit relevancy and cross-departmental alignment and acceptance
- Developed and executed a strategy using ChatGPT for document generation, translation, and redaction, based on business outcomes and ROI, Leading to the onboarding of a new vendor, replacing manual processes and saving significant time.
- Product Owner for analytics landing page integrating with Veeva Vaults, utilizing LLMs for enhanced search and personalisation, increasing access to dashboards and relevancy of dashboards to business operations

Skills: Team Leadership, Strategic Planning, Agile Methodologies.
Technologies: Generative AI, Llama Index, Azure, AWS, Atlassian

01 | 2021 — 05 | 2021

Interim Head of Data Science — BI X GmbH

- Responsible for coaching and development of self-organized team of 9 data scientists, ensuring quality of data science output across multiple initiatives
- Coaching Product Owners with BI X leadership Team Members during weekly calls to proactively identified and removed blockers to product development
- Responsible for staffing new initiatives and internal hiring, while maintaining strict adherence to budget and short time-lines

Skills: Strategic Coordination, Team Management, Leadership
Technologies: JIRA, AWS, Atlassian, Git, Python, Machine Learning

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| 01 2018 – 07 2021 | (Senior) Data Scientist — BI X GmbH <ul style="list-style-type: none"> Developed a clinical data catalogue integrating historic clinical trials, identifying new biomarkers using NLP and Ontologies. Created ETL processes and search algorithms for a drug discovery app, enhancing collaboration and data quality for new drug compounds. Created PoC and initiated innovation project based upon generation of novel molecules using SMILES and genAI for interactive compound lead optimization web app Lead developer on NGS validation pipeline in AWS for comparing short-read sequencing to long-read assembly methods, resulting in 16 genetic leads for specific disease profiles Skills: Collaborative Problem Solving, SCRUM Leadership, UX Research Technologies: Python, Docker, SQL, SpaCy, TensorFlow, git, CI/CD |
| 04 2016 – 12 2017 | Research Scientist, Radiogenomics, Eberhard Karls University Tübingen <ul style="list-style-type: none"> Aggregated and analyzed high-dimensional datasets including ngs, medical imaging, and gene annotations in clinical trials, allowing physicians to make better treatment decisions Advised students and taught python for Biologists course at the Max Planck Skills: Interdisciplinary Collaboration, Data Engineering. Technologies: Python, DICOM, TensorFlow, Seaborn, Docker, SQL, NoSQL |
| 03 2010 – 03 2016 | Research Fellow, Oncology (WSIC), Eberhard Karls University Tübingen <ul style="list-style-type: none"> Developed Machine Learning pipelines, integrating PET and MRI data to segment tumor microenvironments and validation strategies with histology Co-Authored a Nature Biomedical Engineering Publication demonstrating the translation potential of the aforementioned prognostic biomarker model Skills: Analytical Thinking, Problem-Solving, Project Management Technologies: MATLAB, PET, MRI |

Education

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| 03 2010 – 03 2016 | Doctorate in Molecular Imaging (Dr. sc. hum.) <i>Werner Siemens Imaging Center (WSIC), Eberhard Karls University Tübingen</i> |
| 10 2007 - 02 2010 | Masters in Biomedical Engineering (M.Sc.) <i>Rheinisch-Westfälische Technische Hochschule (RWTH), Aachen</i> |
| 09 2002 – 05 2007 | Bachelors in Physics and Mathematics (B.Sc.) <i>Midwestern State University (MWSU), Texas, USA</i> <i>Received competitive Scholarship from Midwestern State University</i> |

Further Education

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| 06 2022 | Casual Inference Workshop – Harvard Medical School |
| 01 2022 – 06 2023 | 1-on-1 Management Coaching – Consulting Impact, Daniel Zacher |
| 01 2022 – 06 2022 | Executive Education – Harvard Medical School |
| 2018 2020 2022 | Design Thinking Facilitator Training – WeAreNeon |

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| Languages | English — Native Language German — Fluent |
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| Personal Interests | listening to music, playing music with others (bass, electric guitar, and drums), personal fitness (body weight workouts, mountain biking, wind surfing, hiking), cooking, reading |
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